CUI INC
a bel group

SERIES: SWI18-E | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

- up to 18 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- no load power consumption < 0.075 W
- compact size
- universal input voltage range
- over voltage, over current, and short circuit protections
- CE safety approvals
- EN 62368 certified

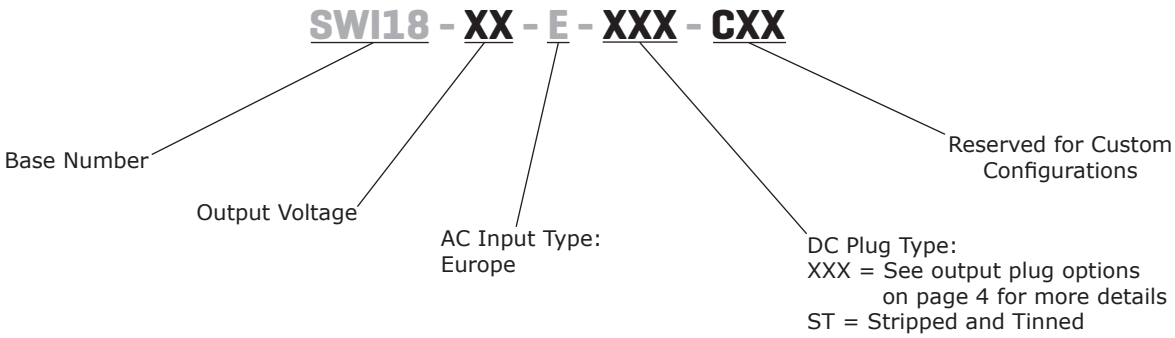
RoHS CE

MODEL

MODEL	input voltage	input frequency	output voltage	output current	output power	ripple and noise[1]	efficiency level[2]		no load power consumption
	range (Vac)	range (Hz)	nom (Vdc)	max (A)	max (W)	max (mVp-p)	average[3] (%)	10% (%)	typ (W)
SWI18-5-E	90 ~ 264	47 ~ 63	5	3.0	15.0	100	82.2	79.0	0.07
SWI18-9-E	90 ~ 264	47 ~ 63	9	2.2	19.8	100	86.5	80.7	0.07
SWI18-12-E	90 ~ 264	47 ~ 63	12	1.6	19.2	120	85.8	80.5	0.06
SWI18-24-E	90 ~ 264	47 ~ 63	24	0.8	19.2	240	87.9	82.0	0.07

Notes:
1. At full load, nominal AC input voltage, 25°C, 20 MHz bandwidth oscilloscope, output terminated with 0.1 µF and 10 µF capacitors to ground.
2. CoC Tier 2 compliant.
3. Average efficiency is measured at 25%, 50%, 75%, and 100% load.

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				0.48	A
inrush current	at 100 Vac, full load, 25°C, cold start at 230 Vac, full load, 25°C, cold start			50 60	A A
leakage current				0.25	mA
no load power consumption	at 230 Vac Level VI CoC Tier 2			 0.1 0.075	 W W

OUTPUT

parameter	conditions/description	min	typ	max	units
regulation	5 Vdc output model all other models		±6 ±5		% %
hold-up time	at full load	10			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output shut down 5 Vdc output model 9 Vdc output model 12 Vdc output model 24 Vdc output model			 12 16 22 45	 Vdc Vdc Vdc Vdc
over current protection	output shut down, auto recovery 5 Vdc output model 9 Vdc output model 12 Vdc output model 24 Vdc output model			 7 5 5 2.5	 A A A A
short circuit protection	output shut down, auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute		3,000		Vac
isolation resistance	input to output at 500 Vdc	10			MΩ
safety approvals	certified to 62368: EN				
EMI/EMC	CE				
MTBF	as per Telcordia SR-332, 25°C	300,000			hours
RoHS	2011/65/EU				

ENVIRONMENTAL

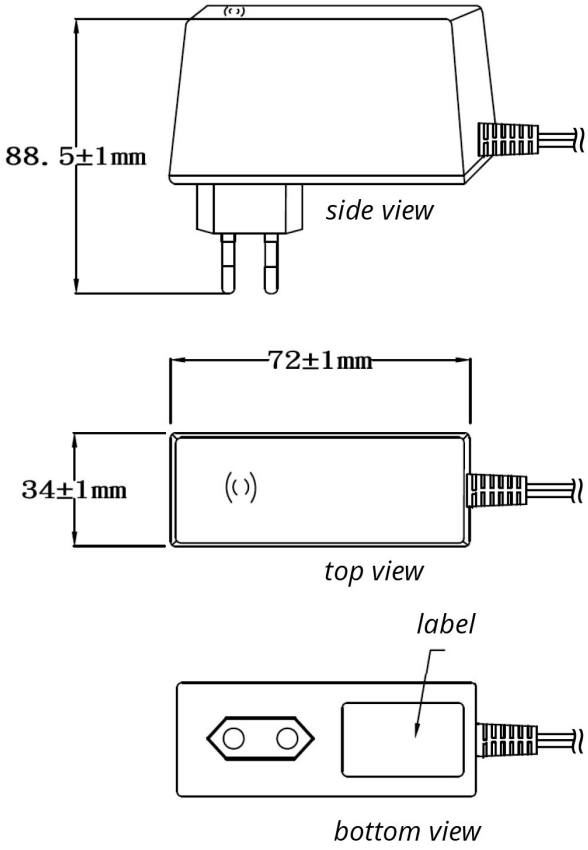
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		80	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	72 x 34 x 88.5				mm
inlet plug	Europe				
weight			170		g

MECHANICAL DRAWING

units: mm



DC CORD

units: mm

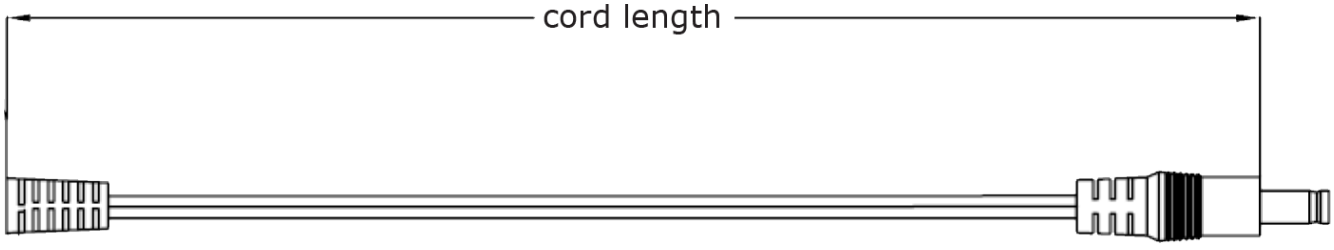
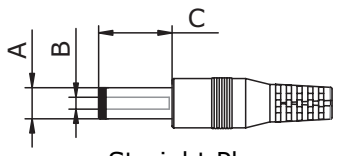


Table 1

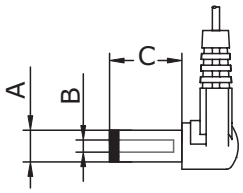
MODEL NO.	CABLE	CORD LENGTH
SWI18-5-E	UL2468, 16 AWG	1,500 mm ±30
SWI18-9-E	UL2468, 18 AWG	1,500 mm ±30
SWI18-12-E	UL2468, 20 AWG	1,500 mm ±30
SWI18-24-E	UL2468, 22 AWG	1,500 mm ±30

OUTPUT PLUG OPTIONS

Standard DC Plug



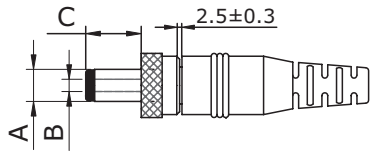
Straight Plug



Right Angle Plug

Size	A	B	C	Unit
5	5.5	2.1	9.5	mm
6	5.5	2.5	9.5	mm
7	3.5	1.35	9.5	mm
8	3.8	1.35	9.5	mm
9	3.8	1.05	9.5	mm

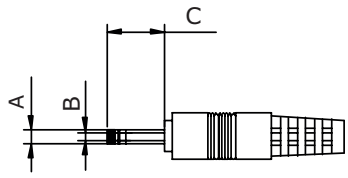
Locking DC Plug



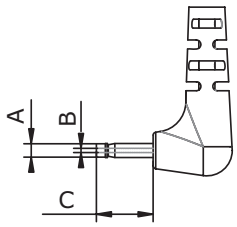
Size	A	B	C	Unit
10	5.5	2.1	9.5	mm
11	5.5	2.5	9.5	mm

Note: Maximum insertion depth is 10mm

EIAJ DC Plug



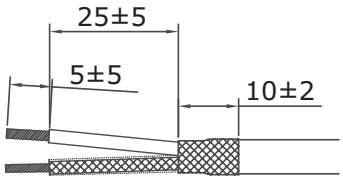
Straight Plug



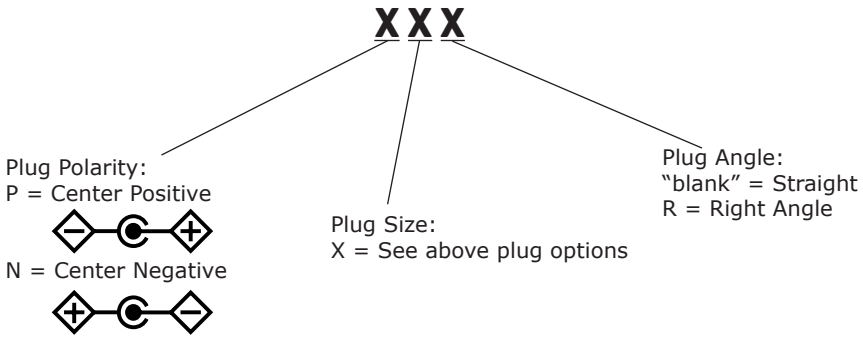
Right Angle Plug

Size	EIAJ	A	B	C	Unit
12	EIAJ-1	2.35	0.7	9.5	mm
13	EIAJ-2	4.0	1.7	9.5	mm
14	EIAJ-3	4.75	1.7	9.5	mm

Stripped and Tinned



DC Plug Type



*Contact CUI for additional plug options

REVISION HISTORY

rev.	description	date
1.0	initial release	08/07/2015
1.01	updated datasheet	05/18/2016
1.02	changed wire gauge on 5 Vdc models, updated datasheet	09/15/2016
1.03	drawing update	07/13/2020
1.04	62368 added to safety approvals	09/09/2020
1.05	model table updated	11/27/2020
1.06	plug polarity symbols updated	09/16/2021
1.07	dc plugs updated	04/29/2022
1.08	mechanical drawing updated	03/21/2024

The revision history provided is for informational purposes only and is believed to be accurate.

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